

**REMARKS**

Claims 1-20 were pending prior to this Response, with claims 7-10, 17, 19 and 20 having been withdrawn from further consideration. By the present communication, no claims have been added, claims 4, 6 and 16 have been canceled without prejudice, and claims 1, 2, 11, 12 and 19 have been amended to recite Applicant's invention with greater particularity. Paragraphs [0002], [0010], [0013], [0030], [0033], [0035] and [0043] of the specification are amended herein. Paragraph [0025] has been deleted as suggested by the Examiner. Applicants note that claim 19 has been amended under 37 C.F.R. §1.121(c) in order to maintain the right to rejoinder when a genus claim is found allowable. Amended Figure 3A and new Figures 4A-4E are provided in Exhibit A as replacement formal drawings. The amendments do not raise any issues of new matter. Support for "water-free disposal of urine" may be found at paragraphs [0001] and [0003]. Support for "disposal of bowl contents during flush operation" may be found at paragraph [0001]. Support for the phrase "when the urine outlet is closed tight" may be found at paragraph [0012]. The claim amendments do not constitute new matter, being fully supported by the Specification and original claims. Accordingly, claims 1, 2, 5 and 11-15 are currently pending in this application.

**Objections to the Drawings**

The Examiner has objected to the drawings because reference numerals "202" and "203" are allegedly missing. Applicants respectfully direct the Examiner's attention to Figure 2A on Replacement Sheet 1/2 filed on March 29, 2005, in which reference numerals "202" and "203" are clearly indicated. Accordingly, withdrawal of the objection is respectfully requested.

The Examiner has further objected to the drawings because the "device for flushing the entire toilet bowl" and the "partition wall" are allegedly not shown in any of the drawings. Applicant has amended claims 1 and 11 to delete the "device for flushing the entire toilet bowl," rendering the objection moot as to this limitation. Applicant has further added Figures 4A-4E to show a urine-separating toilet bowl that depends upon a partition wall to achieve the separation of urine from faeces. Support for the added drawing may be found in the

Specification at, among others, paragraphs [0002] and [0007]. Accordingly, Applicant respectfully requests withdrawal of the objection.

**Objections to the Specification**

The Examiner objects to the specification alleging at page 4 of the Office Action that the specification does not provide proper antecedent basis for the “partition wall” set forth in claims 1 and 13, and “hydraulically connected” set forth in claim 11. Applicant respectfully traverses this objection.

Amended paragraph 0002 states that “[s]tate-of-the-art urine separating toilets are equipped with a partition wall between the front urine outlet and the back faecal outlet area, thus dividing the toilet bowl into two hydraulically unconnected partial-bowls, related to the tow levels of the outlets.” Thus, in the context of the discussion at paragraph 0004, the partition wall is disclosed as a disadvantage to the currently available (i.e., state-of-the-art) urine separating toilets because the partition wall prevents the urine outlet area from being flushed, “and thus the toilet paper...cannot be transported to the faecal outlet by means of flushing.” (see Specification at paragraph 0004). Accordingly, Applicant has added Figures 4A-4E to show a urine-separating toilet bowl that depends upon a partition wall to achieve the separation of urine from faeces. The present device is “constructed *without* a partition wall between the urine and faecal outlets in such a way, that the whole bowl can be cleaned during flush operation....” (see Specification at paragraph 0001). Applicant respectfully submits that the absence of the partition wall is part of the inventive subject matter. One of skill in the art would therefore understand from the teachings of the Specification, in view of Figures 4A-4E, and the wording of the claims that the device does not rely upon a partition wall. Accordingly, removal of the objection is respectfully requested.

The Examiner further objects to the limitation “hydraulically connected” in claim 11. Applicant has amended claim 11 to remove the allegedly unsupported language. Applicant further notes that the Examiner indicated at page 5, last line through page 6, line 2, that “Fig. 1 illustrates the urine siphon 6 and faecal siphon 1 as having inlets communicating with a single

toilet bowl and outlets communicating with a single drain.” While Applicant agrees with the Examiner’s assessment of the invention, please note that the reference numerals were amended to 106 and 101 respectively. The invention provides the ability to drain urine without the need for flushing water into urine siphon 106, at which point, it is drained into sewer or related piping. Likewise, when solid waste (i.e., faecal waste) is deposited into the bowl, the urine siphon is closed and flushing water transports the waste to the faecal siphon 106, at which point, it is also drained into sewer or related piping. Accordingly, Applicant respectfully requests withdrawal of the objection.

The Examiner further objects to the specification, alleging that the specification fails to disclose how the opening device is activated by one sitting down on the toilet bowl, and further, fails to disclose how the seat A remains “tipped up” against the bias of closing device 26. Applicant respectfully traverses the objections and directs the Examiner’s attention to paragraphs 0013 and 0014 of the specification, which describe how the weight of a user (i.e., through sitting) leads to a lifting of the urine outlet seal via a device for opening the urine outlet. Upon rising of the user, the seal is closed. However, in order to reduce the issues and further prosecution, Applicant has amended claims 1 and 11 to remove the limitation “sits on the toilet bowl.” With regard to disclosure about how the seat A remains “tipped up”, Applicant respectfully directs the Examiner’s attention to paragraph 0042 of the specification, which states,

Tipping up the toilet seat (A) causes a turn to the right of bearing (25) around axle (1). Thereby tackle (24) draws bar (8) upwards, and the urine outlet seal lifts, and the toilet flushing is blocked. After tipping down the toilet seat (A), spring (26) forces the mechanism back to the state of rest.”

Accordingly, Applicant submits that the specification discloses how seat A remains “tipped up,” and respectfully requests withdrawal of the objections.

**Rejection Under 35 U.S.C. § 112, First Paragraph**

The rejection of claims 1, 2, 4-6 and 11-16 under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, is respectfully traversed. Specifically, the Examiner alleges that no practical ability to separate urine and faeces has been disclosed. Applicant has canceled claims 4, 6 and 16, rendering the rejection moot as to those claims. As discussed above, Applicant's invention provides the ability to drain urine without the need for flushing water into urine siphon 106, at which point, it is drained into sewer or related piping. Likewise, when solid waste (i.e., faecal waste, toilet paper, and/or urine dry-off) is deposited into the bowl, the urine siphon is closed and flushing water transports the waste to the faecal siphon 106, at which point, it is also drained into sewer or related piping. Accordingly, Applicant has amended claims 1 and 11 to clarify the invention, and respectfully requests withdrawal of the rejection.

The Examiner further alleges that the implementation of "a device for flushing the entire toilet bowl" in claims 1, 2, 4-6 and 11-16 is not taught by the specification as filed. Applicants respectfully traverse this rejection. Applicant has canceled claims 4, 6 and 16, rendering the rejection moot as to those claims. However, in order to reduce the issues and further prosecution, Applicant has amended claims 1 and 11 to remove the allegedly unsupported limitation. Accordingly, Applicant submits that the rejection has been rendered moot, and requests withdrawal of the rejection.

The Examiner further alleges that "wherein no partition wall is located between the urine outlet and the faecal outlet" is not defined in the originally filed disclosure and therefore lacks an adequate written description. Applicant respectfully traverses this rejection, and directs the Examiner's attention to the specification at paragraphs 0001-0004, which describe that the prior art toilets "are equipped with a partition wall between the front urine outlet and the back faecal outlet area, thus dividing the toilet bowl into two hydraulically unconnected partial-bowls...." Applicant submits that the limitation from claim 1 quoted by the Examiner

recites a negative limitation (i.e., the invention *does not have* a partition wall separating the two outlets). According to MPEP §2173.05(i),

The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Note that a lack of literal basis in the specification for a negative limitation may not be sufficient to establish a *prima facie* case for lack of descriptive support. *Ex parte Parks*, 30 USPQ2d 1234, 1236 (Bd. Pat. App. & Inter. 1993).

The partition wall is described in the specification as a disadvantage with the prior art toilets because “the front urine outlet cannot be flushed, and thus the toilet paper, being disposed of in the front urine outlet mainly during women’s urination, cannot be transported to the faecal outlet by means of flushing. Applicant submits that the specification provides functional characteristics that would enable one of skill in the art to understand what constitutes a partition wall in the context of a toilet. Therefore, the specification provides adequate basis for the negative limitation “wherein no partition wall is located between the urine outlet and the faecal outlet.” Accordingly, Applicant respectfully requests withdrawal of the rejection.

The Examiner further argues that “there appears to be a “partition wall” illustrated in Fig. 2 separating elements 2 and 3. Applicant notes that the reference numerals were amended to 202 and 203, respectively in replacement sheet 1/2, filed March 31, 2005. Applicant further notes that the Examiner, at page 2 of the Office Action, objected to the drawings because the “partition wall” set forth in claims 1 and 13 must either be shown in the drawings or canceled from the claims. While Applicant submits that Figures 2A-2D do not show a partition wall separating elements 202 and 203, it appears contradictory to have received an objection for lack of showing an element and a rejection for showing the same element. As described in paragraphs 0027-0029, the invention may include “bulging protrusions” to “guide the urine into the urine outlet.” However, the “bulging protrusions” of the invention do not have the same functional characteristics as the “partition wall” of the prior art toilets. Furthermore, Applicant has added Figures 4A-4E to illustrate an example of the prior art toilet that depends

upon the partition wall (205) between the front urine outlet and the back faecal outlet area, thus dividing the toilet bowl into two hydraulically unconnected partial-bowls. Accordingly, Applicant respectfully requests withdrawal of the rejection.

**Rejection Under 35 U.S.C. § 112, Second Paragraph**

The rejection of claims 6, 11, and 16 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, is respectfully traversed. Specifically, the Examiner alleges that it is unclear whether the “toilet” is intended to be part of the claimed combination since structure of the “device” is defined as being connected thereto, but no positive structural antecedent basis therefore has been defined. In order to reduce the issues and further prosecution, Applicant has canceled claims 6 and 16 without prejudice, rendering the rejection moot as to those claims. Applicant has amended claim 11 to clearly define the invention. Accordingly, Applicant submits that claim 11 is now definite, and withdrawal of the rejection is requested.

**Rejection Under 35 U.S.C. § 102**

Applicant respectfully traverses the rejection of claims 1, 2, 4-6 and 11-15 under 35 U.S.C. § 102(b) as being anticipated by Geeham (U.S. Patent No. 5,873,136; hereinafter “Geeham”). Specifically, the Examiner alleges that Geeham discloses a device comprising a device for opening 18; a device for closing 52b; a device for flushing 22; “no partition wall”; a feature 65; and a toilet 10 including a urine outlet 58, a fecal outlet 30, a bowl 12 having protrusions (Fig. 1, at 34) and a seat. Applicant has canceled claims 4, 6 and 16, rendering the rejection moot as to those claims. Applicant respectfully submits that the invention device for a urine separating toilet, as defined by amended claims 1 and 11, distinguish over the disclosure of Geeham by requiring:

- a) a device for opening the urine outlet *if a user sits down on the toilet seat, or tips the toilet seat backward*, and

b) a device for closing the urine outlet *if the user rises after the opening of the urine outlet or tips the toilet seat downward,*

wherein solids that remain around or upon the closed urine outlet are transported with flushing water and drained by the force of gravity into the faecal outlet only when the urine outlet is closed, wherein no liquids remain around or upon the closed urine outlet, and wherein no partition wall is located between the urine outlet and the faecal outlet.

Applicant notes that the toilet bowl of Geeham does not have protrusions. Reference number 34 identifies water, which “fills the trap 24 at the bottom portion of the bowl 12 to a height approximated by the height of the upleg portion 28,...[which] immerses the terminous 26a of the depending projection 26, thereby sealing-off the bowl from the drain 36.” (Geeham, col. 4, lines 6-10). While projection 26 may be considered a protrusion, it does not “guide the urine into the urine outlet,” as required by the Applicant’s claims 5 and 15. Furthermore, projection 26 defines the trap 24 within bowl. (Geeham, col. 3, lines 66-67).

Geeham discloses a two flush modality toilet wherein the bowl valve is simple and reliable and the urinal flush plumbing has minimal cross-sectional height. (Geeham, col. 2, lines 46-48). The Geeham toilet comprises a “bowl control valve 18 [that] is composed of a foot pedal 50 which is connected to the pivot rod 59, and a biasing spring 54 connected, a for example with an interior partition wall.” (Geeham, col. 5, lines 6-8). It is the bowl control valve 18 that controls actuation of the pop-up stopper 55 to drain whatever liquid is in the bowl. Applicant respectfully submits that the Geeham toilet is not capable of being used in the functionally recited manner. Geeham discloses that when the foot pedal 50 is depressed to a down position, the pop-up stopper is pushed upwards causing any liquid in the bowl to drain through the bowl valve into the drain. Upon release of the foot pedal, the pop-up stopper is lowered, enabling water to be held in the trap. (Geeham, col. 5, lines 14-29). In contrast, Applicant’s claimed device requires a device for opening the urine outlet *if a user sits down on the toilet seat, or tips the toilet seat backward and* a device for closing the urine outlet *if the user rises after the opening of the urine outlet or tips the toilet seat downward.* The opening and/or closing of the urine outlet is directly related to whether a user sits down on the toilet

bowl, sits down on the toilet seat or tips the toilet set backward. There is no requirement to press a foot pedal, as in Geeham. Accordingly, the Geeham toilet cannot be used in the functionally recited manner.

Furthermore, Geeham discloses that “when the urinal flush modality is selected, it is desired to only supply enough water to the bowl 12 to refill the trap 24.” (Geeham, col. 5, lines 48-49). In contrast, Applicant’s claimed device requires that *no liquids remain around or upon the closed urine outlet*. When opened, the urine outlet receives undiluted urine (water-free disposal). As disclosed in the specification, “if urine is diluted with water, urinary calculus precipitates, clogging the urine drainage pipes in the long run. Thus the urine outlet has to be designed water-free.”

Anticipation under 35 U.S.C. § 102(b) requires that the reference recite each and every element of the claims in a single document. Since Geeham fails to disclose each and every element of the invention methods, as defined by amended claims 1 and 11, Applicant respectfully submits that the Examiner has failed to establish anticipation under 35 U.S.C. § 102 (b) over Geeham. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Applicant respectfully traverses the rejection of claims 1, 2, 4-6 and 11-16 under 35 U.S.C. § 102(b) as being anticipated by Wilhelm (U.S. Patent No. 3,877,082; hereinafter “Wilhem”). Specifically, the Examiner alleges that Wilhelm discloses a device comprising a device for opening 43; a device for closing 41; a device for flushing 5; “no partition wall” as outlets 17 and 22 communicate with a common drain 19; a feature; and a bowl 16 having protrusions (Fig. 1, at 22), and a seat. Applicant has canceled claims 4, 6 and 16, rendering the rejection moot as to those claims. Applicants respectfully submit that the invention device for a urine separating toilet, as defined by amended claims 1 and 11, distinguish over the disclosure of Wilhem by requiring:

- a) a device for opening the urine outlet *if a user sits down on the toilet seat, or tips the toilet seat backward*, and

b) a device for closing the urine outlet *if the user rises after the opening of the urine outlet or tips the toilet seat downward,*

wherein solids that remain around or upon the closed urine outlet are transported with flushing water and drained by the force of gravity into the faecal outlet only when the urine outlet is closed, wherein no liquids remain around or upon the closed urine outlet, and wherein no partition wall is located between the urine outlet and the faecal outlet.

Wilhelm discloses a water saving toilet that uses a valved bypass connection in the weir of the trap to permit a choice of two liquid levels in the bowl. Of the two liquid levels within the bowl, the higher is generally used for defecation, and the lower for urination. In either instance, waste is deposited into water held within the bowl prior to flushing. Furthermore, Wilhelm discloses that “at the conclusion of the cycle clean water at the lower level exists but with the opening 22 in the weir of the trap firmly closed.” (Wilhelm, col. 4, lines 1-3). In contrast, Applicant’s claimed device requires a device for flushing the entire toilet bowl wherein *no liquids remain around or upon the closed urine outlet*. When opened, the urine outlet receives undiluted urine (water-free disposal). As disclosed in the specification, “if urine is diluted with water, urinary calculus precipitates, clogging the urine drainage pipes in the long run. Thus the urine outlet has to be designed water-free.”

Additionally, the Examiner alleges that “the Wilhelm opening and closing devices are capable of being used in the functionally recited manner.” (Office Action, page 12). Applicant submits that the functionality of Wilhelm cannot be used in the manner recited by Applicant’s specification. Wilhelm discloses that following urination, the user selects the appropriate flushing handle, which opens valve opening 22 and provides a lower-volume flush. The valve opening then recluses slowly under the force of the valve closure spring 41 being damped pneumatically by the operation of the air cylinder in which the spring is contained. (Wilhelm, col. 3, line 28 – col. 4, line 17). In contrast, Applicant’s claimed device opens the urine outlet *if a user sits down on the toilet seat, or tips the toilet seat backward and closes the urine outlet if the user rises after the opening of the urine outlet or tips the toilet seat downward.* The opening and/or closing of the urine outlet is directly related to whether a user sits down on the

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toilet seat or tips the toilet set backward. There is no requirement to select the appropriate flushing handle, as in Wilhelm.

Anticipation under 35 U.S.C. § 102(b) requires that the reference recite each and every element of the claims in a single document. Since Wilhelm fails to disclose each and every element of the invention methods, as defined by amended claims 1 and 11, Applicant respectfully submits that the Examiner has failed to establish anticipation under 35 U.S.C. § 102 (b) over Wilhelm. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

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**CONCLUSION**

In summary, for the reasons set forth herein, Applicants maintain that claims 1, 2, 5 and 11-15 clearly and patentably define the invention and respectfully request that the Examiner withdraw all rejections and pass the application to allowance. If the Examiner would like to discuss any of the issues raised in the Office Action, the Examiner is encouraged to call the undersigned so that a prompt disposition of this application can be achieved.

Enclosed is Check No. 579739 in the amount of \$760.00 which consists of the three (3) month Extension of Time fee \$510.00 and the Notice of Appeal fee \$250.00. The Commissioner is hereby authorized to charge for any additional required fees, or credit any overpayments to Deposit Account No. 07-1896.

Respectfully submitted,



Date: November 3, 2005

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Enclosure: Exhibit A

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**Exhibit A**  
**Replacement Sheets 1-3**

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**Amendments to the Drawings**

The attached replacement sheets of drawings include changes to Figure 1 and new Figures 4A-4E. The replacement sheets, which include Figures. 1, 2A-2D, 3A-3B and 4A-4E, replace all previously filed original and amended sheets, which include Figures 1, 2, and 3 and replacement Figures 1, 2A-2D, and 3A-3B, which were filed with the previous Response.

A copy of the replacement sheets (EXHIBIT A) is attached hereto. In Figure 1, reference letter "E," which refers to the schematic mechanism on the right side of the figure, has been amended to reference letter "F". Figures 4A-4E have been added to show a urine-separating toilet bowl that depends upon a partition wall to achieve the separation of urine from faeces. Support for the added drawing may be found in the Specification at, among others, paragraphs [0002] and [0007].

Attachment: (EXHIBIT A) Replacement Sheets